

We claim:

1. A two part dental bleaching gel system comprising:  
an energizer phase,  
said energizer containing an energizer substance that will chemically react with an oxygen-containing medium in a peroxide phase to cause release of oxygen ions therefrom at a rate that is greater than a rate of release of oxygen ions from the oxygen-containing medium absent said energizer substance, a peroxide phase,  
said peroxide phase containing an oxygen-containing medium, and  
a storage and mixing vessel,  
an energizer chamber within said storage and mixing vessel containing said energizer phase,  
a peroxide chamber within said storage and mixing vessel containing said peroxide phase, and  
a mixing apparatus which serves to mix said energizer phase with said peroxide phase to yield a dental bleaching gel.
2. A system as recited in claim 1 wherein said energizer phase includes a basic substance.
3. A system as recited in claim 1 wherein said energizer phase includes potassium hydroxide.
4. A system as recited in claim 1 wherein said energizer phase includes potassium iodide.
5. A system as recited in claim 1 wherein said energizer phase includes both potassium hydroxide and potassium iodide.
6. A system as recited in claim 1 wherein said energizer phase includes a compound of potassium.

7. A system as recited in claim 1 wherein said energizer phase includes a compound of iodine.
8. A system as recited in claim 1 wherein said energizer phase includes a hydroxide and an iodide.
9. A system as recited in claim 1 wherein said energizer phase includes a thickener.
10. A system as recited in claim 1 wherein said thickener is selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol and glycerin.
11. A system as recited in claim 1 wherein said gel dental bleach includes a desensitizer.
12. A system as recited in claim 11 wherein said desensitizer is a salt.
13. A dental bleaching system comprising:
  - a vessel,
  - an energizer chamber within said vessel,
  - a oxygen radical chamber within said vessel, and
  - a mixing apparatus that serves to mix contents of said energizer chamber with contents of said oxygen radical chamber to form a useful dental bleach,
  - an energizer phase located within said energizer chamber,
    - said energizer containing an energizer substance that will chemically react with an oxygen-containing medium in an oxygen-radical phase to cause release of oxygen ions therefrom at a rate that is greater than a rate of release of oxygen ions from the oxygen-containing medium absent said energizer substance,
  - an oxygen radical phase located within said oxygen radical chamber,
    - said oxygen radical phase including an oxygen-containing medium.

14. A system as recited in claim 13 wherein said energizer phase includes a basic substance.

15. A system as recited in claim 13 wherein said phase includes potassium hydroxide.

16. A system as recited in claim 13 wherein said energizer phase includes potassium iodide.

17. A system as recited in claim 13 wherein said energizer phase includes both potassium hydroxide and potassium iodide.

18. A system as recited in claim 13 wherein said energizer phase includes a compound of potassium.

19. A system as recited in claim 13 wherein said energizer phase includes a compound of iodine.

20. A system as recited in claim 13 wherein said energizer phase includes a hydroxide and an iodide.

21. A system as recited in claim 13 wherein said energizer phase includes a thickener.

22. A system as recited in claim 13 wherein said thickener is selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol and glycerin.

23. A system as recited in claim 13 wherein mixture of said energizer phase with said oxygen radical phase results in release of oxygen ions that have a beneficial tooth whitening effect.

24. A dental bleaching system comprising:  
a vessel,  
an energizer chamber within said vessel,

a oxygen radical chamber within said vessel, and  
a mixing apparatus that serves to mix contents of said  
energizer chamber with contents of said oxygen radical chamber to  
form a useful dental bleach,  
an energizer phase located within said energizer chamber,  
said energizer containing potassium hydroxide and  
potassium iodide,  
an oxygen radical phase located within said oxygen radical  
chamber,  
said oxygen radical phase including an oxygen-  
containing medium.

25. A system as recited in claim 24 wherein said oxygen-  
containing medium is hydrogen peroxide.